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IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF CALIFORNIA
FRESNO DIVISION

FRIENDS OF YOSEMITE VALLEY,
et al.,

Plaintiffs,

v.

DIRK KEMPTHORNE, in his
official capacity as Secretary of
the Interior, et al.,

Defendants.

Case No. CV-F-00-6191 AWI DLB

FIFTH DECLARATION OF
ALEXANDER R. PETERSON
IN SUPPORT OF
DEFENDANTS' MOTION FOR
STAY PENDING APPEAL

DATE: February 26, 2007
TIME: 1:30 p.m.
PLACE: Courtroom 2
JUDGE: Hon. Anthony W. Ishii

I, Alexander R. Peterson, declare as follows:

1. I am a California Registered Professional Engineer (Civil) employed by the consulting engineering firm of Kennedy/Jenks Consultants, Engineers and Scientists (Kennedy/Jenks),

1 where I have worked since 1997. I have a Bachelor of Science Degree in Civil Engineering from
2 California State University, Sacramento obtained in 1985. I am a Senior Engineer and a
3 Principal with the firm. I have been continuously employed as a consulting engineer since June
4 of 1985 and have over 21 years experience in the evaluation, design, and construction of
5 engineered systems for water, wastewater, and other civil infrastructure. I have been responsible
6 for project engineering and project management with Yosemite National Park wastewater
7 projects including providing technical assistance regarding Park compliance planning for the
8 August 2, 2000, Cleanup and Abatement Order (CAO) from the California Regional Water
9 Quality Control Board, for the September 2002 Yosemite Valley Sanitary Sewer System Capital
10 Improvement Plan (CIP), and for the Integrated CIP and the Yosemite Valley Integrated Utility
11 Master Plan (IUMP).

12 2. In 2002, Kennedy/Jenks prepared an integrated CIP and IUMP that presented an
13 ecologically preferred and cost effective means to complete the rehabilitation of the sewer
14 system required by the CAO. One of the goals of the IUMP was to remove deteriorated utilities
15 from waterways, meadows, and riparian areas and relocate them in consolidated utility corridors
16 under existing roadways. Portions of for the sewer system not in sensitive resource areas would
17 be repaired in accordant with the CIP. Sections of the sewer system needing repair were
18 classified based on two driving factors: 1) the severity of the system defect and 2) professional
19 opinion as to the probability that failure to correct the defect(s) could result in a sanitary sewer
20 overflow. The highest risk rankings were "emergency" and "immediate."

21 3. To date, the emergency and immediate category repairs that the NPS was allowed to
22 undertake are those included in "Option 1," which the Court approved in October 2004. (My
23 declaration of August 31, 2004 provides additional detail about the work entailed in Option 1.)
24 The work involved in Option 1 is nearly complete. Several elements remain to be done and these
25 are indicated in Exhibit A. In my professional opinion, these remaining elements still pose a
26 serious potential health and environmental risk. The serious potential health and environmental
27 risks of exposure to raw sewage are discussed in my previous declarations.

28 4. Option 1 did not include all of the repairs in the "emergency" and "immediate"

categories. As discussed below, there remain 40 pipe segments that have repairs falling into the emergency and immediate categories. In the paragraphs that follow, I explain the severity of the sewer system conditions that still exist and that would be rectified if the NPS is able to implement the remaining Option 1 work in conjunction with Phases 2 and 3 of the IUMP. (The Declaration of Jeffrey Harsha provides additional detail regarding the utility system realignments that the IUMP made to the CIP in an effort to minimize construction work in sensitive resource areas.)

5. As it stands now, 40 segments of sewer pipeline containing emergency or immediate condition defects still require repair. (A segment is a portion of pipe measured from manhole to manhole.) Sixteen of these segments are located in highly sensitive resource areas. These are indicated in Exhibit A as being located in meadows, riparian areas, or waterways. Of the repairs that remain to be done, twelve (12) have been classified as “emergency” and twenty-eight (28) are “immediate” repairs. The “emergency” ranked locations have been monitored by the NPS in an effort to mitigate the risk of spills. However, if NPS is prevented from addressing these deficiencies for months or even years, the likelihood of spills increases dramatically.

6. These 40 segments are included in the remaining portion of CIP and the IUMP Phases 2 and 3 and are listed in Exhibit A.¹ This table documents which of the remaining sewer pipeline segments rated as “emergency” and “immediate” are currently located in waterways, riparian areas and meadows. Additionally, Exhibit A provides a statement of each segment’s deficiency and recommended repair. Deficiencies include specific condition-related repairs resulting from structural damage or flow volume deficiencies resulting from a combination of pipe diameter and slope that do not meet current engineering standards. Exhibit B is a map that identifies the location of the lines in Exhibit A. The purple lines are the emergency and immediate repairs that have been completed to date. The remaining lines with the CIP designation “emergency” repair are indicated in red, and the remaining “immediate” repairs are indicated in yellow.

7. It is important to note that delay of the CIP Phase 2 and IUMP Phases 2 and 3 work

¹ Phases 2 and 3 of the IUMP also contain additional sections of pipe in the intermediate and long-term categories. These defects would also be addressed if Phase 2 and 3 work is allowed to proceed.

1 would increase the likelihood of system failure at any of the 40 locations, resulting in sewer
2 spills, emergency cleanup, and repairs within sensitive habitats. If such a failure were to occur,
3 the NPS would have to undertake work which would necessitate digging up and repairing lines
4 in meadows, wetlands, and riparian habitats.

5 8. Phases 2 and 3 of the IUMP were specifically designed to avoid construction or
6 repairs in sensitive areas. The IUMP Phase 2 and 3 projects are discussed below:

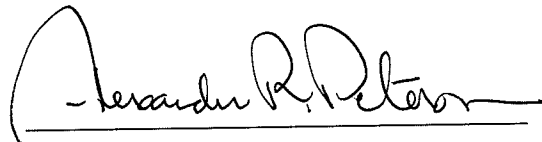
- 7 • The West Yosemite Village Corridor Project is a segment of sewer main that runs from
8 the school to just north of Ranger Y. (This segment of the sewer main is located in Area
9 5 on Exhibit Band begins at approximately C52 and ends at approximately D2.) This
10 project would eliminate 11 of the remaining 40 segments in the CIP identified as having
11 deficient conditions.
- 12 • Phase 2 of the IUMP includes a wastewater pump station and pumped pipeline through
13 the Lower Pines Campground to the new Curry Village Lift Station. (This section of the
14 system is located in Areas 2 and 7 on Exhibit B and runs from approximately P3 to F13.)
15 This project would eliminate the need for five (5) segment repairs, of which one (1) is a
16 river crossing.
- 17 • The Ahwahnee Corridor Project is a segment of line that goes from the Ahwahnee Hotel
18 to the newly constructed Tecoya Housing line. (This section of the system is located in
19 Area 3 on Exhibit B and runs from approximately N22, through N212 and ends at
20 approximately G2.) This project, in conjunction with the closing of North Pines
21 Campground, would eliminate twelve (12) segment repairs all of which are in meadows
22 or waterways. By also doing a small segment of line that connects the lower end of the
23 Tecoya Housing line to the Yosemite Village Lift Station (Phase 3, Camp 6 area), four
24 (4) more segments would be eliminated, three (3) of which are also in meadows. A total
25 of thirty-two (32) segments would be addressed by the above IUMP projects. It is
26 important to understand that by completing this work in accordance with the IUMP,
27 rather than the in-place repairs called for by the CIP, one river crossing would be avoided
28 as would 16 segment repairs in meadows or waterways. Eight (8) would proceed in

1 accordance with the CIP recommendations because they are not within a meadow or in
2 the river and are not effected by the IUMP Phases 2 and 3 (These eight projects are
3 numbers 12,13,14,15, 21, 22, 29 and 40 on Exhibit A).

4 9. In summary, should the NPS be allowed to complete the next phases of sewer system
5 repairs in accord with the IUMP, all remaining emergency and immediate repair segments would
6 be completed in a manner that causes far less disruption to meadow and riparian areas along the
7 Merced River.

8 10. Continued delay of repairs as a result of the current injunction would greatly increase
9 the likelihood of system failure, allowing already compromised segments of sewer line to further
10 deteriorate. The projects identified in Exhibit A and shown in Exhibit B were originally
11 identified as needing to be completed by 2004 for those rated "emergency" and 2005 for those
12 rated "immediate" projects. These dates were based on an opinion as to risk of occurrence of a
13 sewer spill. These estimates were incorporated into the NPS's response to the CAO as
14 demonstration that the Park was proceeding to remedy condition and flow volume deficiencies
15 that were contributing to recurring sewer spills. If the NPS were allowed to proceed with repairs,
16 the earliest completion schedule for the remaining 40 segments would be fall of 2008. If an
17 injunction were to remain in place for an additional 18 months, this would result in a late 2009
18 completion date, fully 3 to 4 years after the 2004 and 2005 completion dates provided to the
19 Regional Water Quality Control Board for emergency and immediate repairs respectively. The
20 risk of sewer system spills and overflows will increase dramatically if the NPS is prevented from
21 undertaking these repairs for that period of time.

22 I declare under penalty of perjury that the foregoing is true and correct. Executed on
23 January 24, 2007, at Sacramento, California.

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Alexander R. Peterson

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**Fifth Declaration of
Alexander R. Peterson**

Exhibit A

Exhibit A - Remaining Sewerline Segments with Emergency and Immediate Condition Deficiencies Followings CIP 1A, CIP 1B and IUMP Phase 1

Reference Number	Segment Description	Number of Segments	Recommended Repair for Condition Deficiency	Within Meadow, Riparian Area, or Waterway?	IUMP Projects to Resolve Deficiency
Line MH	Line MH				
1 C	C1	1	Spot Repair	No	Phase 3 (West Yosemite Village Corridor)
2 C	C2	1	Spot Repair	No	Phase 3 (West Yosemite Village Corridor)
3 C	C3	1	Spot Repair	No	Phase 3 (West Yosemite Village Corridor)
4 C	C6	1	Spot Repair	No	Phase 3 (West Yosemite Village Corridor)
5 C	C7	1	Spot Repair	No	Phase 3 (West Yosemite Village Corridor)
6 C	C7A	1	Spot Repair	No	Phase 3 (West Yosemite Village Corridor)
7 C	C8	1	Cured-in-Place Pipe	No	Phase 3 (West Yosemite Village Corridor)
8 C	C52 SCHOOL	1	Replace Pipe	No	Phase 3 (West Yosemite Village Corridor)
9 D	D2	1	Spot Repair	No	Phase 3 (West Yosemite Village Corridor)
10 D	D2	1	Spot Repair	No	Phase 3 (West Yosemite Village Corridor)
11 D	D3	1	Spot Repair	No	Phase 3 (West Yosemite Village Corridor)
12 D	D37	1	Replace Pipe	No	
13 D	D5	1	Spot Repair	No	
14 F	F131	1	3 Spot Repairs	No	
15 F	F133	1	Protruding Tap	No	
16 F	F13	1	Enforce Grease Mgmt.	No	Phase 2 (Lower Pines Lift Station to Curry Village Lift Station)
17 F	F14	1	Enforce Grease Mgmt.	No	Phase 2 (Lower Pines Lift Station to Curry Village Lift Station)
18 F	F18	1	Capacity Increase	No	Phase 2 (Lower Pines Lift Station to Curry Village Lift Station)
19 F	F19	1	Capacity Increase	No	Phase 2 (Lower Pines Lift Station to Curry Village Lift Station)
20 J	J1	1	Capacity Increase	No	Phase 3 (Camp 6)
21 J	J2	1	Enforce Grease Mgmt.	Yes	
22 J	J4	1	Enforce Grease Mgmt.	No	
23 N	N4	1	Cured-in-Place Pipe	Yes	Phase 3 (Camp 6, Ahwahnee Corridor UMP, Close or reroute NPLS)
24 N	N8	1	Cured-in-Place Pipe	Yes	Phase 3 (Camp 6, Ahwahnee Corridor UMP, Close or reroute NPLS)
25 N	N9	1	Cured-in-Place Pipe	Yes	Phase 3 (Camp 6, Ahwahnee Corridor UMP, Close or reroute NPLS)
26 N	N15	1	Line Pipe	Yes	Phase 3 (Ahwahnee Corridor, Close or reroute NPLS)
27 N	N16	1	Capacity Increase	Yes	Phase 3 (Ahwahnee Corridor, Close or reroute NPLS)
28 N	N19	1	Capacity Increase	Yes	Phase 3 (Ahwahnee Corridor, Close or reroute NPLS)
29 N	N20	1	Capacity Increase	Yes	Phase 3 (Ahwahnee Corridor, Close or reroute NPLS)
30 N	N21	1	Capacity Increase	Yes	Phase 3 (Ahwahnee Corridor, Close or reroute NPLS)
31 N	N212	1	Replace Pipe	Yes	Phase 3 (Ahwahnee Corridor, Close or reroute NPLS)
32 N	N22	1	Capacity Increase	Yes, (Waterway)	Phase 3 (Ahwahnee Corridor, Close or reroute NPLS)
33 N	N23	1	Capacity Increase	Yes	Phase 3 (Ahwahnee Corridor, Close or reroute NPLS)
34 N	N24	1	Capacity Increase	Yes, (Waterway)	Phase 3 (Ahwahnee Corridor, Close or reroute NPLS)
35 N	N25	1	Capacity Increase	Yes	Phase 3 (Ahwahnee Corridor, Close or reroute NPLS)
36 N	N26	1	Spot Repair	Yes	Phase 3 (Ahwahnee Corridor, Close or reroute NPLS)
37 N	N27	1	Capacity Increase	Yes, (Waterway)	Phase 3 (Ahwahnee Corridor, Close or reroute NPLS)
38 P	P1	1	Replace Pipe	Yes, (Waterway)	Phase 3 (Ahwahnee Corridor, Close or reroute NPLS)
39 P	P4	1	Line Pipe	No	
40 P	P5	1	Line Pipe	No	
TOTAL		40			

Spot Repair = Localized repair generally less than 15 feet in length

Cured-in-Place Pipe (CIPP) = Resin saturated fabric liner hardened in place through a heat curing process typically installed from manhole to manhole

Replace Pipe = Removal and replacement of existing pipeline using open trench construction typically from manhole to manhole

Protruding Tap = Service line lateral connection that extends to within the main line sewer resulting in a possible obstruction to flow and maintenance equipment

Capacity Increase = Installation of relief sewer or increase in diameter/slope to reduce existing peak demand depth of flow and potential overflow

Line Pipe = Installation of lining material typically sufficient to be a structural repair

Enforce Grease Mgmt. = Condition that requires additional and frequent maintenance

Case No. CV-F-00-6191 AWI DLB

**Fifth Declaration of
Alexander R. Peterson**

Exhibit B